

**HAYNES BEFFEL & WOLFELD LLP**

INTELLECTUAL PROPERTY LAW  
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SEP 12 2006

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*Of Counsel:*  
BILL KENNEDY  
KENTA SUZUE  
PETER SU  
JOSEPH E. ROOT

\*admitted in MA only

**FACSIMILE TRANSMITTAL FORM**

FAX NUMBER:	(571) 273-8300
TRANSMITTED TO:	Central Fax
OF:	U.S. Patent and Trademark Office
FROM:	Warren S. Wolfeld/Kathryn Marley
CLIENT/MATTER:	GEMF 2056-1 (10/073,763)
DATE:	12 SEPTEMBER 2006

TOTAL NUMBER OF PAGES INCLUDING THIS COVER SHEET:	23
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ORIGINAL:	
<input checked="" type="checkbox"/>	WILL NOT FOLLOW
<input type="checkbox"/>	FOLLOWS VIA U.S. MAIL
<input type="checkbox"/>	FOLLOWS VIA COURIER

## MAIL STOP PETITION

### ATTENTION PAUL SHANOSKI, SENIOR ATTORNEY

THE DOCUMENTS ACCOMPANYING THIS TELECOPY TRANSMISSION CONTAIN INFORMATION FROM HAYNES BEFFEL & WOLFELD LLP AND ARE FOR THE SOLE USE OF THE ABOVE INDIVIDUAL OR ENTITY, AND MAY BE PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER LAW. ANY OTHER DISSEMINATION, DISTRIBUTION OR COPYING OF THIS COMMUNICATION IS STRICTLY PROHIBITED. PLEASE NOTIFY US IMMEDIATELY BY TELEPHONE IF YOU ARE NOT THE INTENDED RECIPIENT AND RETURN THE ORIGINAL MESSAGE TO US AT THE ABOVE ADDRESS. WE WILL REIMBURSE YOUR REASONABLE PHONE AND POSTAGE EXPENSE FOR DOING SO.

Application No. 10/073,763

Attorney Docket No. GEMF 2056-1

**CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.8**

I hereby certify that this correspondence is being facsimile transmitted to United States Patent and Trademark Office at Fax No. 571.273.8300 on 12 September 2006.

  
Kathryn Marley

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SEP 12 2006

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:  
Markus P. Hehlen, et al.

Application No.: 10/073,763

Confirmation No.: 4505

Filed: 11 February 2002

Title: **Integrated Optical Isolator Array**

Group Art Unit: 2874

Examiner: Phan T.H. Palmer

**CUSTOMER NO. 54413**

**MAIL STOP PETITION**

**ATTN: PAUL SHANOSKI, SENIOR ATTORNEY**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

**RESPONSE TO DECISION ON PETITION TO WITHDRAW HOLDING OF  
ABANDONMENT**

Sir:

Applicants previously filed a *Petition Under 37 C.F.R. 1.181(a) to Withdraw the Holding of Abandonment Based on Failure to Receive Notice of Allowance*. The Petition was Dismissed as untimely and on the ground that applicant failed to meet its duty to notify the Patent Office of its change of address.

Applicants therefore now submit herewith a "*Petition for Revival of an Application for Patent Abandoned Unintentionally Under 37 C.F.R. §1.137(b)*."

**DOCUMENTS SUBMITTED HEREWITH**

Submitted herewith are the following documents:

1. Petition for Revival of an Application for Patent Abandoned Unintentionally Under 37 C.F.R. §1.137(b).

Application No. 10/073,763

Attorney Docket No. GEMF 2056-1

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2. Exhibit A, which includes:

- a. A copy of the *Petition Under 37 C.F.R. §1.181(a) to Withdraw the Holding of Abandonment Based on Failure to Receive Notice of Allowance* received in the Patent Office on 11 May 2006;
  - b. A copy of the *Request for Continued Examination (RCE)* filed with the Petition Under 37 C.F.R. §1.181(a) on 11 May 2006;
  - c. A copy of the *Information Disclosure Statement (IDS)* filed with the Petition Under 37 C.F.R. §1.181(a) on 11 May 2006;
  - d. A copy of the *Amendment* filed with the Petition Under 37 C.F.R. §1.181(a) on 11 May 2006.
3. A Form PTO 2038 in the amount of \$750 to cover the petition fee.

**CONCLUSION**

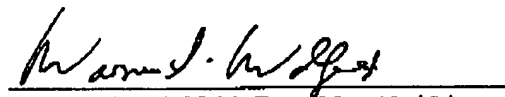
In light of the above, Applicants respectfully submit that the application should be revived, and that the RCE, IDS, and Amendment should be considered.

Applicants further submit that the pending claims are again in condition for allowance and thereby solicit acceptance of the claims, in light of these amendments.

Respectfully submitted,

Dated: 12 September 2006

GEMFIRE c/o  
Haynes Beffel & Wolfeld LLP  
P.O. Box 366  
Half Moon Bay, CA 94019  
(650) 712-0340 (telephone)  
(650) 712-0263 (facsimile)

  
Warren S. Wolfeld, Reg. No. 41,454

PTO/SB/64 (07-06)

Approved for use through 09/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT  
ABANDONED UNINTENTIONALLY UNDER 37 CFR 1.137(b)**

Docket Number (Optional)

GEMF 2056-1

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SEP 12 2006

First named inventor MARKUS P. HEHLEN ET AL.

Application No.: 10/073,763

Art Unit: 2874

Filed: 11 FEBRUARY 2002

Examiner: PHAN T H PALMER

Title: INTEGRATED OPTICAL ISOLATOR ARRAY

Attention: Office of Petitions

Mail Stop Petition

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

FAX (571) 273-8300

NOTE: If information or assistance is needed in completing this form, please contact Petitions Information at (571) 272-3282.

The above-identified application became abandoned for failure to file a timely and proper reply to a notice or action by the United States Patent and Trademark Office. The date of abandonment is the day after the expiration date of the period set for reply in the office notice or action plus an extensions of time actually obtained

**APPLICANT HEREBY PETITIONS FOR REVIVAL OF THIS APPLICATION**

NOTE: A grantable petition requires the following items:

- (1) Petition fee;
- (2) Reply and/or issue fee;
- (3) Terminal disclaimer with disclaimer fee - required for all utility and plant applications filed before June 8, 1995; and for all design applications; and
- (4) Statement that the entire delay was unintentional.

**1 Petition fee**☒ Small entity-fee \$ 750.00 (37 CFR 1.17(m)). Applicant claims small entity status See 37 CFR 1.27☐ Other than small entity - fee \$ \_\_\_\_\_ (37 CFR 1.17(m))**2. Reply and/or fee**A. The reply and/or fee to the above-noted Office action in the form of RCE, AMENDMENT and IDS (identify type of reply):

- ☒ has been filed previously on 11 MAY 2006
- ☐ is enclosed herewith.

B. The issue fee and publication fee (if applicable) of \$ 09/13/2006 MBINAS 00000048 10073763

- ☐ has been paid previously on 01 FC:2453
- ☐ is enclosed herewith.

750.00 DP

[Page 1 of 2]

This collection of information is required by 37 CFR 1.137(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/64 (07-06)

Approved for use through 09/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

## 3. Terminal disclaimer with disclaimer fee

☒ Since this utility/plant application was filed on or after June 8, 1995, no terminal disclaimer is required.☐ A terminal disclaimer (and disclaimer fee (37 CFR 1.20(d)) of \$ \_\_\_\_\_ for a small entity or \$ \_\_\_\_\_ for other than a small entity) disclaiming the required period of time is enclosed herewith (see PTO/SB/63).

4. STATEMENT: The entire delay in filing the required reply from the due date for the required reply until the filing of a grantable petition under 37 CFR 1.137(b) was unintentional. [NOTE: The United States Patent and Trademark Office may require additional information if there is a question as to whether either the abandonment or the delay in filing a petition under 37 CFR 1.137(b) was unintentional (MPEP 711 03(c), subsections (III)(C) and (D)).]

**WARNING:**

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

Warren S. Wolfeld  
Signature

9/12/2006  
Date

WARREN S. WOLFELD  
Typed or printed name

31,454  
Registration Number, if applicable

HAYNES BEFFEL & WOLFELD LLP  
Address

(650) 712-0340  
Telephone Number

P.O. BOX 366, HALF MOON BAY, CA 94019  
Address

Enclosures: ☒ Fee Payment☐ Reply☐ Terminal Disclaimer Form☒ Additional sheets containing statements establishing unintentional delay

RESPONSE TO DECISION ON PETITION, COPY OF PETITION, RCE IDS, AMENDMENT FILED

☒ Other: 05/11/2006 and DECISION DATED 07/31/2006**CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]**

I hereby certify that this correspondence is being:

☐ Deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop Petition, Commissioner for Patents, P. O. Box 1450 Alexandria, VA 22313-1450.☒ Transmitted by facsimile on the date shown below to the United States Patent and Trademark Office as (571) 273-8300.12 SEPTEMBER 2006

Date

Kathryn Marley  
Signature  
KATHRYN MARLEY

Typed or printed name of person signing certificate

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:  
Markus P. Hehlen, et al.

Application No.: 10/073,763

Confirmation No.: 4505

Filed: 11 February 2002

Title: **Integrated Optical Isolator Array**

Group Art Unit: 2874

Examiner: Phan T.H. Palmer

**CUSTOMER NO. 54413**

**EXHIBIT A**

**TO**

**RESPONSE TO DECISION ON  
PETITION TO WITHDRAW  
HOLDING OF ABANDONMENT**

Sep.12. 2006 4:09PM Haynes Beffel Wolfeld LLP

No.3262 P. 7  
No. 3840 P. 2  
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May. 11. 2006 12:10PM Haynes Beffel Wolfeld LLP

Application No. 10/073,763

Attorney Docket No. GEMF 2056-1

**CERTIFICATE OF TRANSMISSION UNDER 37 CFR 1.8**  
I hereby certify that this correspondence is being facsimile  
transmitted to United States Patent and Trademark Office at Fax No. 571.273.8300 on 11 May 2006.

  
Kathryn Marley

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MAY 11 2006

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:  
Markus P. Hehlen, et al.

Application No.: 10/073,763

Confirmation No.: 4505

Filed: 11 February 2002

Title: Integrated Optical Isolator Array

Group Art Unit: 2874

Examiner: Phan T.H. Palmer

**CUSTOMER NO. 54413**

**MAIL STOP PETITION**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PETITION UNDER 37 C.F.R. 1.181(a)**  
**TO WITHDRAW THE HOLDING OF ABANDONMENT**  
**BASED ON FAILURE TO RECEIVE NOTICE OF ALLOWANCE**

Sir:

Applicants hereby petition for withdrawal of the Notice of Abandonment in the above-identified patent application, on the ground of failure to receive the Notice of Allowance. No fee is due for the Petition, but the appropriate fee is submitted herewith for the accompanying documents.

**FACTS**

The Notice of Allowance mailed on November 24, 2004 was addressed to the assignee's Palo Alto, CA address. However, the assignee had previously moved in June 2002 to its current address in Fremont, CA. A copy of the Notice of Allowance (page 1 only), obtained from the PTO's files, is attached hereto as Exhibit A.

As further proof that Applicants did not receive the Notice of Allowance, attached as Exhibit B is a copy of the PTO's envelope, stamped "Forwarding Order Expired" by the U.S.

Page 1 of 2

PAGE 2/18 \* RCVD AT 5/11/2006 3:59:14 PM [Eastern Daylight Time] \* SVR:USPTO-EFAXF-2/22 \* DNIS:2738300 \* CSID:650 712 0263 \* DURATION (mm-ss):07:40

PAGE 7/23 \* RCVD AT 5/12/2006 7:19:36 PM [Eastern Daylight Time] \* SVR:USPTO-EFAXF-6/46 \* DNIS:2738300 \* CSID:650 712 0263 \* DURATION (mm-ss):03:32

Application No. 10/073,763

Attorney Docket No. GEMF 2056-1

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SEP 12 2006

Postal Service, and received back in the PTO on December 8, 2004. This document, too, was obtained from the PTO's files.

Applicants understand that no attempt was made by the PTO to re-mail the Notice of Allowance or to find Applicants' correct address until the Notice of Abandonment was mailed 15 months later.

The Notice of Abandonment was mailed on March 2, 2006, to Assignee's correct address in Fremont, CA. A copy of the Notice of Abandonment is attached as Exhibit C. This was Applicants' first notice that there was an outstanding communication from the PTO.

The attached exhibits therefore demonstrate that Applicants did not receive the Notice of Allowance.

### DOCUMENTS SUBMITTED HEREWITH

Submitted herewith are the following documents:

1. A Request for Continued Examination (RCE)
2. An Information Disclosure Statement (IDS), as the "submission" required under 37 C.F.R. 1.114(c)
3. An Amendment.

### CONCLUSION

In light of the above, Applicants respectfully submit that the holding of abandonment should be withdrawn, and that the RCE, IDS, and Amendment be entered.

Applicants further submit that the pending claims are again in condition for allowance and thereby solicit acceptance of the claims, in light of these amendments.

Respectfully submitted,

Dated: 11 May 2006

GEMFIRE c/o  
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(650) 712-0263 (facsimile)

  
Warren S. Wolfeld, Reg. No. 41,454

Page 2 of 2





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**CORRECTED**  
**NOTICE OF ALLOWANCE AND FEE(S) DUE**  
TECHNOLOGY CENTER 2800

25485 7390 11/22/2004  
GEMFIRE CORPORATION  
2471 EAST BAYSHORE ROAD  
SUITE 600  
PALO ALTO, CA 94303

EXAMINER PALMER, PHANTH	
ART UNIT 2574	PAPER NUMBER
DATE MAILED: 11/22/2004	

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10079793	02/14/2002	Markus P. Heiken	36	4505
TITLE OF INVENTION: INTEGRATED OPTICAL ISOLATOR ARRAY				

APPL. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$585	\$0	\$585	02/22/2005

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

**HOW TO REPLY TO THIS NOTICE:**

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status and is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

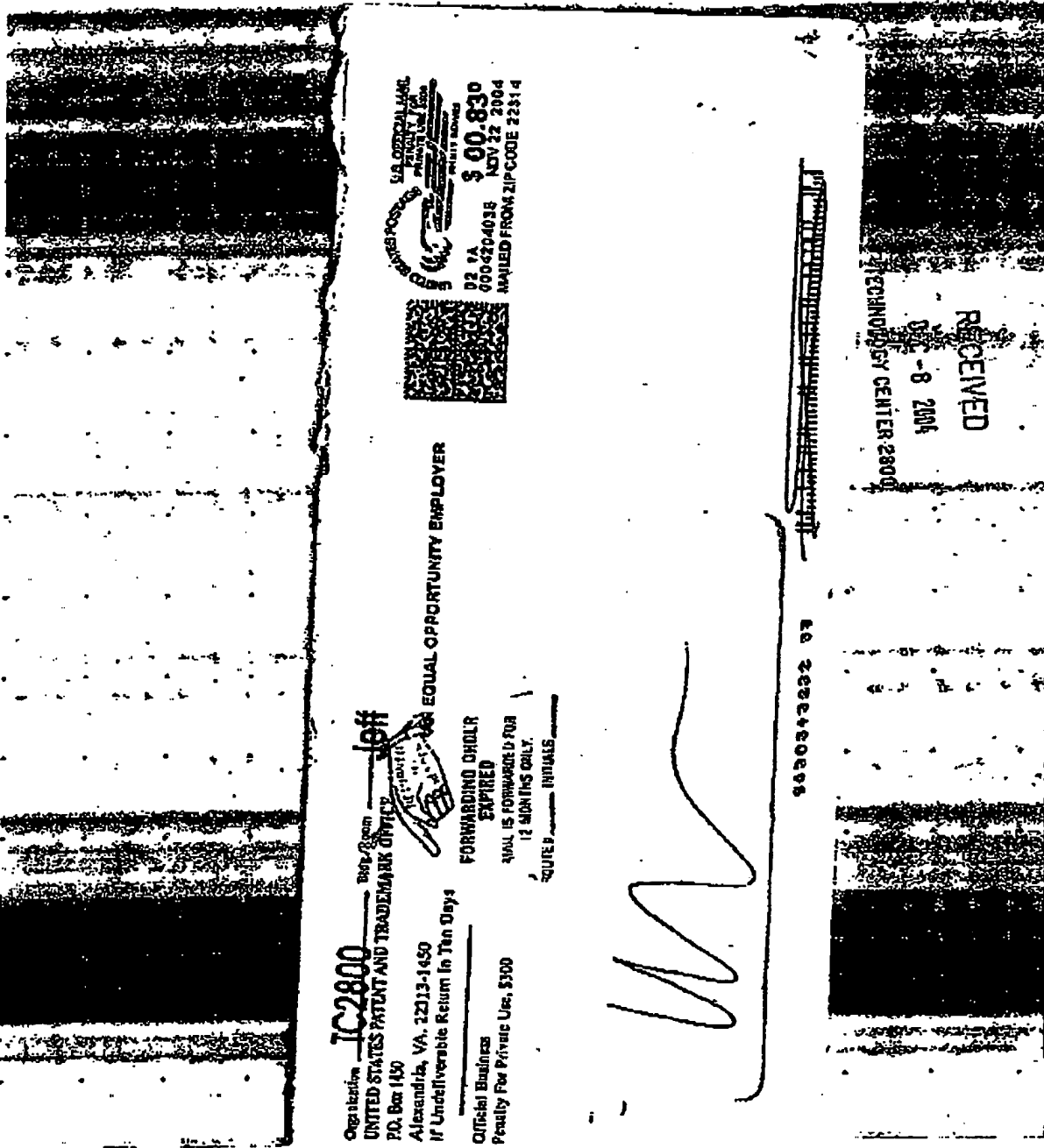
III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

Page 1 of 3

PTOL-85 (Rev. 11/80) Approved for use through 04/30/2007.

**EXHIBIT A**



## EXHIBIT B

Sep.12. 2006 4:10PM Haynes Beffel Wolfeld LLP

May.11. 2006 12:12PM Haynes Beffel Wolfeld LLP

No.3262 P. 11

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**MAY 11 2006**



**UNITED STATES PATENT AND TRADEMARK OFFICE**

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Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,763	02/11/2002	Markus P. Hehlen	56	4505
7590 03/02/2006				
Gemfire Corporation 1220 Page Ave Fremont, CA 94538				
			EXAMINER PALMER, PHAN TH	
			ART UNIT 2874	PAPER NUMBER

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**EXHIBIT C**

PTO-90C (Rev. 10/03)

PAGE 0118 \* RCVD AT 5/11/2006 3:59:14 PM [Eastern Daylight Time] \* SVR:USPTO-EFXRF-2/22 \* DNIS:2738300 \* CSID:650 712 0263 \* DURATION (mm-ss):07-40

PAGE 11/23 \* RCVD AT 9/12/2006 7:19:36 PM [Eastern Daylight Time] \* SVR:USPTO-EFXRF-6/46 \* DNIS:2738300 \* CSID:650 712 0263 \* DURATION (mm-ss):03-32

**Notice of Abandonment**

Application No.

10/073,763

Examiner

PALMER

Applicant(s)

Markus P. Hehlan

Art Unit

2874

**- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -**

This application is abandoned in view of:

1. ☐ Applicant's failure to timely file a proper reply to the Office letter mailed on \_\_\_\_\_.
  - (a) ☐ A reply was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply (including a total extension of time of \_\_\_\_\_ month(s)) which expired on \_\_\_\_\_.
  - (b) ☐ A proposed reply was received on \_\_\_\_\_, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection.  
(A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
  - (c) ☐ A reply was received on \_\_\_\_\_, but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
  - (d) ☐ No reply has been received.
2. ☒ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
  - (a) ☐ The issue fee and publication fee, if applicable, was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
  - (b) ☐ The submitted fee of \$\_\_\_\_\_ is insufficient. A balance of \$\_\_\_\_\_ is due.  
The issue fee required by 37 CFR 1.18 is \$\_\_\_\_\_. The publication fee, if required by 37 CFR 1.18(d), is \$\_\_\_\_\_.
  - (c) ☒ The issue fee and publication fee, if applicable, has not been received.
3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
  - (a) ☐ Proposed corrected drawings were received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply.
  - (b) ☐ No corrected drawings have been received.
4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6. ☐ The decision by the Board of Patent Appeals and Interference rendered on \_\_\_\_\_ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7. ☐ The reason(s) below:

AG

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.

U.S. Patent and Trademark Office  
PTOL-1432 (Rev. 04-01)

Notice of Abandonment

Part of Paper No. 0

PAGE 718 \* RCVD AT 8/11/2006 3:59:14 PM [Eastern Daylight Time] \* SVR:USPTO-EFXXRF-2/22 \* DNIS:2738300 \* CSID:650 712 0263 \* DURATION (mm-ss):07-00

PAGE 12/23 \* RCVD AT 9/12/2006 7:19:36 PM [Eastern Daylight Time] \* SVR:USPTO-EFXXRF-6/46 \* DNIS:2738300 \* CSID:650 712 0263 \* DURATION (mm-ss):03-32

MAY 11 2006

PTO/SB/30 (04-05)

Approved for use through 07/31/2008. OMB 0851-0051  
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

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**Request  
for  
Continued Examination (RCE)  
Transmittal**Address to:  
Mail Stop RCE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Application Number	10/073,763
Filing Date	11 February 2002
First Named Inventor	Markus P. Hehlen
Art Unit	2874
Examiner Name	Phan T. H. Palmer
Attorney Docket Number	GEMF 2056-1

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

- Submission required under 37 CFR 1.114** Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

a. ☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

i. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on \_\_\_\_\_

ii. ☐ Other \_\_\_\_\_

b. ☒ Enclosed

i. ☒ Amendment/Reply

ii. ☐ Affidavit(s)/ Declaration(s)

iii. ☒ Information Disclosure Statement (IDS)

iv. ☒ Other PETITION UNDER 37 CFR 1.181(a)
- Miscellaneous**

a. ☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of \_\_\_\_\_ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(d) required)

b. ☐ Other \_\_\_\_\_
- Fees**

The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

The Director is hereby authorized to charge the following fees, any underpayment of fees, or credit any overpayments, to Deposit Account No. 50-0869. I have enclosed a duplicate copy of this sheet.

a. ☒ RCE fee required under 37 CFR 1.17(e)

ii. ☐ Extension of time fee (37 CFR 1.136 and 1.17)

iii. ☐ Other \_\_\_\_\_

b. ☐ Check in the amount of \$ \_\_\_\_\_ enclosed

c. ☒ Payment by credit card (Form PTO-2038 enclosed)

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**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED**

Signature	<i>Warren S. Wolfeld</i>	Date	11 May 2006
Name (Print/Type)	Warren S. Wolfeld	Registration No.	41,454

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Signature	<i>Kathryn Marek</i>	Date	05/10/2006
Name (Print/Type)	Kathryn Marek	Registration No.	395,000

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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No.3262 P. 14  
No. 3840 P. 10  
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Application No. 10/073,763

GEMF 2056-1

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Kathryn Marley

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:  
Markus P. Hehlen, et al.

Application No.: 10/073,763

Confirmation No.: 4505

Filed: 11 February 2002

Title: Integrated Optical Isolator Array

Group Art Unit: 2874

Examiner: Phan T.H. Palmer

**CUSTOMER NO. 54413**

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.56**

Sir:

It is requested that the information identified in this statement be considered by the Examiner and made of record in the above-identified application. This statement is not intended to represent that a search has been made or that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 C.F.R. 1.56.

Enclosed with this statement is a Form PTO-SB/08. The Examiner is requested to initial the form and return it to the undersigned in accordance with M.P.E.P. 609.

Also enclosed with this statement is a copy of each cited document as required by 37 C.F.R. 1.98. The exception to this, in accordance with the 05 August 2003 Official Gazette Notice in which the USPTO waives the requirement for submitting copies of U.S. Patent and Publications for cases filed after 30 June 2003, is that copies of U.S. Patent documents and copies of U.S. Patent publications are not being submitted.

This statement should be considered under 37 C.F.R. 1.97(b) because it is being filed before the mailing date of the first Office Action after the filing of a Request for Continued Examination under 37 C.F.R. 1.114.

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Page 1 of 2

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PAGE 14/23 \* RCVD AT 9/12/2006 7:19:36 PM [Eastern Daylight Time] \* SVR:USPTO-EFAXF-6/46 \* DNIS:2738300 \* CSID:650 712 0263 \* DURATION (mm-ss):03-32

Sep.12. 2006 4:10PM Haynes Beffel Wolfeld LLP

No.3262 P. 15

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No.3840 P. 11

Application No. 10/073,763

GEMF 2056-1

**Fee Authorization.** The Commissioner is hereby authorized to charge underpayment of any additional fees or credit any overpayment associated with this communication to Deposit Account No. 50-0869 (GEMF 2056-1).

Respectfully submitted,

Dated: 5/11/2006

Warren S. Wolfeld  
Warren S. Wolfeld, Reg. No. 41,454

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<b>INFORMATION DISCLOSURE          STATEMENT BY APPLICANT</b> (Use as many sheets as necessary)		Application Number	10/073,763
		Filing Date	11 FEBRUARY 2002
		First Named Inventor	MARKUS P. HEHLEN
		Art Unit	2874
		Examiner Name	PHAN T.H. PALMER
Sheet 1 of 1	Attorney Docket Number	GEMF 2056-1	

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 5,663,824	09-02-1997	KOCH ET AL.	
		US- 5,991,481	11-23-1999	NUANG	
		US- 5,905,823	05-18-1999	SHINTAKU ET AL.	
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Application No. 10/073,763

Attorney Docket No. GEMF 2056-1

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:  
Markus P. Hehlen, et al.

Application No.: 10/073,763

Confirmation No.: 4503

Filed: 11 February 2002

Title: Integrated Optical Isolator Array

Group Art Unit: 2874  
Examiner: Phan T.H. Palmer

**CUSTOMER NO. 54413**

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Commissioner for Patents  
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Alexandria, VA 22313-1450

**AMENDMENT**

Sir:

Please consider the following amendment:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks begin on page 6 of this paper.

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Page 1 of 6

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Application No. 10/073,763

Attorney Docket No. GEMF 2056-1

In the claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (currently amended) An integrated optical isolator device, comprising:  
a planar optical substrate;  
a first waveguide formed in said optical substrate and having an input section and an output section; and  
[[an]] a passive isolator element affixed to said optical substrate and positioned in an optical path of said first waveguide between said input section and said output section, said isolator element being configured to allow the passage of forwardly traveling light from said input section to said output section of said first waveguide while inhibiting the passage of backwardly traveling light from said output section to said input section.
2. (original) The device of claim 1, further comprising a trench formed in said optical substrate, said trench being oriented transversely with respect to a longitudinal axis of said first waveguide, and wherein said trench receives and holds a lower end of said isolator element.
3. (original) The device of claim 1, further comprising a second waveguide formed in said optical substrate and having an input section and an output section, and wherein said optical isolator element is further positioned in an optical path of said second waveguide between said input section and said output section of said second waveguide.
4. (original) The device of claim 1, wherein said isolator element comprises at least one Faraday rotator layer interposed between birefringent layers.
5. (original) The device of claim 1, wherein said input section includes a first taper section for expanding forwardly traveling light from a first mode size to a second mode size.
6. (original) The device of claim 1, wherein said first taper section is substantially adiabatic.

Application No. 10/073,763

Attorney Docket No. GEMF 2056-1

7. (original) The device of claim 5, wherein said output section includes a second taper section for contracting forwardly traveling light from said second mode size to a third mode size.

8. (original) The device of claim 1, wherein a long axis of said isolator element is oriented perpendicular to an optical axis of said first waveguide.

9. (original) The device of claim 2, wherein said trench extends partially through a thickness of said optical substrate.

10. (original) The device of claim 2, wherein said optical substrate is affixed to an underlying support substrate, and said trench extends fully through a thickness of said optical substrate and partially into a thickness of said support substrate.

11. (original) The device of claim 1, wherein said first waveguide has an associated mode center located at least 30 microns below an upper major surface of said optical substrate.

12. (original) The device of claim 1, wherein said input and output sections of said first waveguide are formed simultaneously in said optical substrate.

13. (original) The device of claim 1, wherein said optical substrate is formed from a glass.

14. (original) The device of claim 1, wherein said first waveguide is formed by field assisted ion-exchange.

15. (original) The device of claim 2, wherein said planar optical substrate comprises separate first and second pieces, said input section being formed in said first piece and said output section being formed in said second piece, said first and second pieces being spaced apart across a gap, and said isolator element being disposed at least partially within said gap.

Application No. 10/073,763

Attorney Docket No. GEMF 2056-1

16. (original) The device of claim 15, wherein said first and second pieces are affixed to a common support substrate.

17. (original) An integrated optical isolator array, comprising:  
a planar optical substrate;  
a plurality of waveguides formed in said optical substrate, each one of the plurality of waveguides having an input section and an output section; and  
an isolator element affixed to said optical substrate and positioned in the optical paths of at least two of said waveguides between said input sections and said output sections, said isolator element being configured to allow the passage of forwardly traveling light from said input sections to said output sections of said at least two waveguides while inhibiting the passage of backwardly traveling light from said output sections to said input sections.

18. (original) The integrated optical isolator array of claim 17, further comprising a trench formed in said optical substrate, said trench being oriented transversely with respect to the longitudinal axes of said plurality of waveguides, and wherein said trench receives and holds a lower end of said isolator element.

19. (original) The integrated optical isolator array of claim 17, wherein said isolator element is positioned in the optical paths of all of said plurality of waveguides.

20. (original) The integrated optical isolator array of claim 17, wherein said isolator element comprises at least one Faraday rotator layer interposed between birefringent layers.

21. (original) The integrated optical isolator array of claim 17, wherein said input sections each include a first taper section for expanding forwardly traveling light from a first mode size to a second mode size.

22. (original) The integrated optical isolator array of claim 21, wherein said first taper section is substantially adiabatic.

Application No. 10/073,763

Attorney Docket No. GEMF 2056-1

23. (original) The integrated optical isolator array of claim 21, wherein each of said output sections includes a second taper section for contracting forwardly traveling light from said second mode size to a third mode size.

24. (original) The integrated optical isolator array of claim 17, wherein a long axis of said isolator element is oriented perpendicular to the optical axes of said plurality of waveguides.

25. (original) The integrated optical isolator array of claim 18, wherein said trench extends partially through a thickness of said optical substrate.

26. (original) The integrated optical isolator array of claim 18, wherein said optical substrate is affixed to an underlying support substrate, and said trench extends fully through a thickness of said optical substrate and partially into a thickness of said support substrate.

27. (original) The integrated optical isolator array of claim 17, wherein said input and output sections of said plurality of waveguides are formed simultaneously in said optical substrate.

28. (original) The integrated optical isolator array of claim 17, wherein said optical substrate is formed from a glass.

29. (original) The integrated optical isolator array of claim 18, wherein said planar optical substrate comprises separate first and second pieces, said input section being formed in said first piece and said output section being formed in said second piece, said first and second pieces being spaced apart across a gap, and said isolator element being disposed at least partially within said gap.

30. (original) The integrated optical isolator array of claim 29, wherein said first and second pieces are affixed to a common support substrate.

Application No. 10/073,763

Attorney Docket No. GEMF 2056-1

**REMARKS**

This amendment adds no new matter, and is made to more particularly point out the invention.

Respectfully submitted,

Dated: 5/11/2006

Warren S. Wolfeld  
Warren S. Wolfeld, Reg. No. 41,454

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